APPENDIX F

2007 FUTURE YEAR MODELING INVENTORY DEVELOPMENT

DALLAS/FORT WORTH ATTAINMENT DEMONSTRATION

APRIL 2000 REVISION

Introduction

This report supplements information provided in Appendix F of the State Implementation Plan revision dated October 21, 1998 and submitted to the EPA on March 18, 1999. Specifically, this supplement addresses procedures used to develop the 2007b and 2007d future base cases.

F.1 Development of 2007 on-road mobile source emissions by NCTCOG

Details of the development of the 2007 on-road mobile source emissions in the DFW area and surrounding counties is detailed in Appendix X.

F.2 Area and nonroad mobile source growth for the 2007b and 2007d future bases

Area/nonroad mobile source growth factors by county for Texas counties (DFW nonattainment counties are shown in **bold**)				
48001 1.0637	48065 0.9696	48129 0.9759	48193 0.9499	
48003 1.0862	48067 0.9934	48131 1.0719	48195 0.9923	
48005 1.0535	48069 1.0435	48133 0.9577	48197 0.9468	
48007 1.0701	48071 1.0229	48135 1.1038	48199 1.0107	
48009 1.0370	48073 1.0574	48137 1.0973	48201 1.1780	
48011 0.9774	48075 0.9485	48139 1.4685	48203 1.1120	
48013 1.2193	48077 0.9749	48141 1.2919	48205 0.9757	
48015 1.0475	48079 1.1110	48143 1.1258	48207 0.9544	
48017 1.0575	48081 1.0233	48145 1.0460	48209 1.4253	
48019 1.3618	48083 0.9430	48147 1.0035	48211 0.9936	
48021 1.4840	**48085 1.6075**	48149 1.0226	48213 1.3367	**48085 - Collin**
48023 0.9351	48087 0.9604	48151 0.9529	48215 1.4069	
48025 1.0383	48089 0.9878	48153 1.0287	48217 1.0679	
48027 1.1357	48091 1.4845	48155 0.9477	48219 1.0113	
48029 1.1274	48093 0.9881	48157 1.4724	48221 1.5294	
48031 1.2483	48095 1.0905	48159 1.0527	48223 1.0330	
48033 1.0024	48097 1.0492	48161 1.0033	48225 1.0148	
48035 1.0947	48099 1.1804	48163 1.0951	48227 0.9630	
48037 1.0331	48101 0.9541	48165 1.0390	48229 1.1420	
48039 1.1744	48103 1.1229	48167 1.0612	48231 1.1577	
48041 1.0265	48105 1.0401	48169 1.0485	48233 0.9659	
48043 1.1834	48107 1.0285	48171 1.1548	48235 1.0595	
48045 0.9806	48109 1.1971	48173 1.1318	48237 0.9824	

48047	1.0659	48111	1.0039	48175	1.0745	48239	0.9929	
48049	0.9712	**48113**	**1.1877**	48177	1.0500	48241	1.0118	**48113 - Dallas**
48051	1.1342	48115	1.0281	48179	0.8930	48243	1.0942	
48053	1.2453	48117	1.0347	48181	1.0255	48245	0.9536	
48055	1.2057	48119	1.0124	48183	1.0256	48247	1.2221	
48057	1.0310	**48121**	**1.5501**	48185	1.2373	48249	1.0319	**48121 - Denton**
48059	0.9901	48123	1.0034	48187	1.3369	48251	1.4568	
48061	1.2675	48125	0.9720	48189	0.9758	48253	0.9759	
48063	1.0874	48127	1.0472	48191	0.9583	48255	1.0105	
Area/nonroad mobile source growth factors by county for Texas counties (continued)								
48257	1.4260	48321	1.0302	48385	1.0340	48449	1.0657	
48259	1.3193	48323	1.1922	48387	0.9581	48451	1.1397	
48261	1.1357	48325	1.1729	48389	1.0493	48453	1.1148	
48263	0.9588	48327	0.9900	48391	1.0060	48455	1.1335	
48265	1.1653	48329	1.2197	48393	1.0155	48457	1.0753	
48267	0.9952	48331	1.0182	48395	1.1161	48459	1.0617	
48269	1.0557	48333	0.9972	48397	1.6169	48461	1.0907	
48271	1.0443	48335	0.9701	48399	1.0030	48463	1.0845	
48273	1.0430	48337	0.9160	48401	1.0494	48465	1.1151	
48275	0.9876	48339	1.3141	48403	1.0459	48467	1.1428	
48277	0.9932	48341	1.0546	48405	1.0033	48469	1.0689	
48279	0.9618	48343	0.9740	48407	1.3047	48471	1.0425	
48281	1.0671	48345	0.9252	48409	1.1490	48473	1.1820	
48283	1.0845	48347	1.0929	48411	0.9767	48475	1.0323	
48285	0.9565	48349	1.1270	48413	1.1127	48477	1.1405	
48287	1.1881	48351	1.0704	48415	1.0130	48479	1.3774	
48289	1.2879	48353	1.0216	48417	0.9583	48481	1.0181	
48291	1.0977	48355	1.0704	48419	0.9874	48483	0.9141	
48293	1.0527	48357	0.9904	48421	1.0283	48485	1.0264	
48295	0.9829	48359	0.9800	48423	1.1179	48487	1.0248	
48297	1.0346	48361	0.9911	48425	1.2358	48489	1.0987	
48299	1.0609	48363	1.0851	48427	1.5903	48491	1.6382	
48301	0.9646	48365	1.0844	48429	0.9416	48493	1.3370	
48303	1.0169	48367	1.4980	48431	1.0797	48495	1.0456	
48305	0.9918	48369	1.0486	48433	0.9601	48497	1.2205	
48307	1.0172	48371	1.0506	48435	1.0731	48499	1.1205	
48309	1.0283	48373	1.1399	48437	0.9716	48501	1.0744	

48311	1.0186	48375	1.1008	**48439**	**1.3073**	48503	0.9284
48313	1.0849	48377	1.2985	48441	1.0323	48505	1.4597
48315	1.0433	48379	1.2236	48443	1.0682	48507	1.1004
48317	1.0984	48381	1.2238	48445	0.9955		
48319	0.9687	48383	1.1822	48447	0.9497		

48439 - Tarrant

F.3 Area and nonroad mobile source control factors for the 2007b and 2007d future bases

Control factors from NONROAD model used to build 2007b and 2007d future bases			
Source Category Code	NO_X	VOC	CO
2260002006	2.7658	0.4335	0.7111
2260002009	1.8268	0.3461	0.6085
2260002021	1.9148	0.3231	0.6141
2260002027	2.4873	0.2425	0.6860
2260002039	2.5599	0.3005	0.7821
2260003030	2.2269	0.2084	0.7694
2260003040	2.7748	0.2128	0.7317
2260004015	1.1572	0.5600	0.5889
2260004016	1.3221	0.5031	0.5920
2260004020	1.5468	0.5314	0.6070
2260004021	2.5099	0.3049	0.6968
2260004025	1.5651	0.3563	0.6386
2260004026	1.7860	0.2696	0.6506
2260004030	1.3954	0.5408	0.6017
2260004031	1.8273	0.4122	0.6148
2260004071	2.7096	0.4342	0.7032
2260005035	1.4718	0.4472	0.5944
2260006005	1.7219	0.3729	0.6050
2260006010	1.9475	0.2890	0.6579
2260006015	2.5869	0.2317	0.7013
2260007005	2.1327	0.6863	0.7103
2265001050	0.9027	0.2595	0.5442
2265002003	1.0759	0.3757	0.5949
2265002006	1.3578	0.2923	0.5696
2265002009	1.5772	0.3360	0.7833
2265002015	1.0416	0.3609	0.5838
2265002021	1.3424	0.3252	0.6497
2265002024	1.1451	0.2823	0.5780

Source Category Code	NO_X	VOC	CO
2265002027	1.1932	0.3091	0.6778
2265002030	1.0297	0.5739	0.7586
2265002033	1.0543	0.6983	0.8231
2265002039	0.9611	0.3218	0.5877
2265002042	1.6355	0.3854	0.7628
2265002045	1.0061	0.9034	0.9159
2265002054	1.0212	0.6760	0.7497
2265002072	1.0437	0.6881	0.7697
2265002078	1.4786	0.4553	0.7564
2265002081	1.0003	0.9967	0.9971
2265003010	1.0444	0.7116	0.7805
2265003020	1.0001	0.9997	0.9998
2265003030	1.0070	0.7397	0.8317
2265003040	1.0063	0.4849	0.6631
2265003050	1.0289	0.7481	0.8034
2265003060	1.1992	0.2194	0.5110
2265004010	1.7719	0.5220	0.9104
226x004010	1.7719	0.5220	0.9104
2265004011	1.6727	0.4269	0.9376
2265004015	1.7049	0.5699	0.8989
2265004016	1.9378	0.3955	0.9399
2265004025	1.1980	0.8931	0.9714
2265004026	1.5986	0.5722	0.8821
2265004030	1.3417	0.7046	0.9408
2265004031	1.0324	0.7601	0.8577
2265004040	1.3074	0.5214	0.6253
2265004041	1.1354	0.3645	0.5259
2265004046	1.3723	0.4622	0.6488
2265004050	1.9524	0.3996	0.9382
2265004051	1.9524	0.3981	0.9382
2265004055	1.4472	0.4889	0.6134
2265004056	1.2310	0.2893	0.5191
2265004066	1.0179	0.6512	0.7057
2265004071	1.0503	0.4358	0.6048
2265004075	1.7596	0.4434	0.8650
2265004076	1.7417	0.4418	0.8650
2265005010	1.1934	0.2228	0.5081
2265005030	1.4659	0.3708	0.6508

Source Category Code	NO_X	VOC	CO
2265005035	1.1750	0.5744	0.8470
2265005040	1.2863	0.8421	0.9275
2265005050	1.1996	0.2443	0.5371
2265005055	1.0489	0.7451	0.8589
2265005060	1.0001	0.9869	0.9979
2265006005	1.3142	0.4610	0.6911
2265006010	1.1461	0.4386	0.6886
2265006015	1.0449	0.4556	0.7486
2265006025	1.1973	0.4033	0.6147
2265006030	1.4496	0.3298	0.6814
2265007010	1.5953	0.5418	0.7604
2265008005	1.0022	0.7336	0.8707
2265010010	0.8655	0.2333	0.5232
2270001060	0.8059	0.5509	0.4536
2270002003	0.6952	0.5387	0.3941
2270002009	0.6207	0.7672	0.9964
2270002015	0.7226	0.6003	0.4227
2270002018	0.6362	0.5125	0.4147
2270002021	0.7096	0.6181	0.4270
2270002024	0.7661	0.6563	0.6092
2270002027	0.6918	0.5008	0.6026
2270002030	0.7428	0.5313	0.3918
2270002033	0.7151	0.5792	0.4725
2270002036	0.6679	0.5933	0.4153
2270002039	0.7263	0.5696	0.4157
2270002042	0.7010	0.7606	0.8614
2270002045	0.7038	0.5883	0.5464
2270002048	0.6683	0.5442	0.4160
2270002051	0.6640	0.4662	0.4142
2270002054	0.6442	0.4912	0.3687
2270002057	0.7714	0.5871	0.3661
2270002060	0.6729	0.5869	0.4129
2270002063	0.6621	0.5410	0.5055
2270002066	0.7027	0.5644	0.3308
2270002069	0.6625	0.5416	0.3888
2270002072	0.7601	0.5079	0.3897
2270002075	0.6446	0.4076	0.3302
2270002078	0.8612	0.6590	0.5994

Source Category Code	NO_X	VOC	CO
2270002081	0.6789	0.5368	0.4423
2270003010	0.7686	0.7529	0.7289
2270003020	0.6835	0.5621	0.3733
2270003030	0.6463	0.4923	0.3835
2270003040	0.6545	0.5489	0.4249
2270003050	0.6567	0.6255	0.6028
2270003060	0.8005	0.5720	0.4410
2270003070	0.5812	0.5017	0.3632
2270004031	0.9561	0.8864	0.8338
2270004041	0.8068	0.5119	0.5794
2270004046	0.8253	0.5514	0.6305
2270004056	0.6848	0.5103	0.5140
2270004066	0.8088	0.5731	0.4429
2270004071	0.7495	0.4305	0.4614
2270004076	0.8453	0.6491	0.4943
2270005010	0.5715	0.6620	1.1096
2270005015	0.7022	0.4881	0.5045
2270005020	0.8520	0.8298	0.8565
2270005025	0.9612	0.8128	0.8458
2270005030	0.8274	0.7423	0.7005
2270005035	0.9471	0.7897	0.8294
2270005040	0.9145	0.7809	0.7654
2270005045	0.8935	0.9277	0.9156
2270005050	0.7725	0.4433	0.4555
2270005055	0.7782	0.5922	0.6388
2270005060	0.7161	0.4836	0.3821
2270006005	0.8396	0.6356	0.5462
2270006010	0.8071	0.6099	0.5243
2270006015	0.7829	0.5860	0.3877
2270006020	0.6818	0.3697	0.4111
2270006025	0.8312	0.5964	0.5436
2270006030	0.9395	0.8570	0.8289
2270007010	0.9508	0.8694	0.8424
2270007015	0.5736	0.5277	0.3770
2270008005	0.6294	0.5492	0.4651
2270009010	1.0000	1.0000	1.0000
2270010010	0.5851	0.4674	0.3860
2280002010	0.9300	0.9700	1.0000

Source Category Code	NO_X	VOC	CO
2280002030	0.9300	0.9700	1.0000
2280002040	0.9300	0.9700	1.0000
2282005010	1.0971	0.8737	0.9840
2282005015	4.2488	0.6055	0.8557
2282x05000	2.6729	0.7396	0.9199
2282020005	1.0000	0.9999	0.9998
2282020010	0.9625	0.9034	0.9199
2282020025	0.9686	0.9618	0.9606
2285000000	0.6700	0.9200	1.0000
2285002015	0.6922	0.5661	0.4463
2285004015	1.2678	0.3118	0.5790
2275000000	1.0000	0.6000	1.0000
2275020000	1.0000	0.6000	1.0000
2620000000	1.0000	0.4510	1.0000

F.3 Point source growth for the 2007b and 2007d future bases

F.3.1 Non-Utility Source Growth

In the March 1999 SIP submittal modeling, emissions for point, area, and nonroad mobile sources were projected from 1993 base levels to the 1999 attainment year using economic forecasts from Regional Economic Modeling, Inc. (REMI). These forecasts were applied using the EPA's Economic Growth Analysis System (EGAS) to forecast future emissions (TNRCC 1998a). Unfortunately, the REMI/EGAS system only forecasts economic growth, which may differ significantly from future emissions for several reasons, principally because newer units tend to be inherently less polluting due to newer technology. A recent analysis performed by the commission indicates that point source emissions have generally been decreasing across the state, while the REMI/EGAS model indicates strong economic growth in some regions of Texas. In light of this information, the Commission decided to take a different approach to point source growth.

To project 2007 NEGU point source emissions in Texas, the Commission used a more representative growth methodology. Instead of using the EGAS and REMI models for these growth estimates, the commission emissions inventory staff developed growth factors from industrial survey data collected by the TNRCC.

Between the years 1990 and 1996, the TNRCC and EPA noted that there was a significant changes in the annual emission inventories. EPA requested that the Commission investigate these changes. Commission staff performed a survey of the industrial sources and asked them to account for the changes in their individual inventories. Using the data collected the Commission predicted point source emissions trends. Annual growth factors for NO_X and VOC were developed for specific areas in Texas: the DFW nonattainment area (four counties), the H-G nonattainment area (eight counties), the B-PA nonattainment area (three counties), and the counties planned for inclusion in the proposed area Texas Clean Air Strategy (TCAS).

Because the survey did not provide enough information to develop individual growth factors by Source Category Codes, the same growth was assumed for all NEGU sources within a given area. EGUs were projected to have flat growth from the base year, 1997 in response to SB7 (See discussion below). Commission modeling and emissions inventory staff are currently involved in an effort to develop industry-specific emissions growth models for the most significant emissions categories in Texas, but there is insufficient information at this time to refine the growth methodology beyond that presented here. It should be noted that in each area, the surveyed growth factors for the majority of the state, are negative, reflecting a general decline in emissions of NO_X, VOC, and CO statewide. The DFW area, however, has an essentially flat growth rate for NOx, VOC, and CO.

Table F.3-1 presents a summary of the survey results and the calculated point source growth factors used for each region and pollutant. Note that surveyed annual growth is expressed as a percentage of the 1990 emissions, while the 1996-2007 growth factor is a multiplicative factor applied to the 1996 base year emissions.

The calculation of the 1996-2007 NO_X growth factor for DFW is:

$$(1 - (0.58/100))^{11} = 1.0004$$

The 1996 NO_X emissions from each NEGU point source in the four-county DFW area were multiplied by this factor to provide the 2007 projected emissions of NO_X.

Table F.3-1. Point Source Growth Factors					
	Surveyed Annual Growth		**1996 - 2007 Growth Factor**		
Region	**NO_X**	**VOC**	**NO_X**	**VOC**	**CO**
DFW	+0.0037%	-0.21%	1.0004	0.9771	1.0004
H-G	-0.58%	-1.00%	0.938	0.8953	0.938
B-PA	-1.72%	-2.10%	0.8263	0.7918	0.8263
TCAS	-0.59%	-0.93%	0.937	0.9023	0.937

Key:
DFW - 4-county Dallas/Fort Worth nonattainment area
B-PA - 3-county Beaumont/Port Arthur nonattainment area
H-G - 8-county Houston Galveston nonattainment area
TCAS - Texas Attainment counties within modeling domain that are to be included in the Texas Clean Air Strategy.

F.3.2 Addition of banked sources to the Beaumont/Port Arthur factor

Since the June 1999 SIP submittal, the Commission has reevaluated the growth methodology that was used and has developed new growth factors. The new growth factors account for the emission reduction credit (ERC) banking system that the Commission has in place in nonattainment areas. Banked emissions are emissions that have been taken out of an nonattainment area's inventory, but that could be purchased by companies needing emission credits in the future.

Table F.3-2, below, presents the data used to calculated the growth factor for the BPA nonattainment area. The 1990 - 1999 emissions are those that have been banked under the ERC program. The projected banked emissions were estimated assuming that the rate of banking (approximately 2.5 tons/day/year) will continue through 2007. The Eligible banked emissions, are the projected banked emissions reduced by an offset of 15%. The reduction in the point source inventory is therefore projected to be 15% of the banked emissions. Between 1990 and 2007, the reduction is projected to be 5.45 tons/day. Since our base year inventory is 1993, a prorated reduction will be 4.49 tons per year. With a base year inventory of 175 tons/day, we will have a projected 2007 inventory of 170.51 tons/day. Taking the ratio of these two values, we get a 'growth' factor of 0.9744, which actually indicates a reduction in point source emissions for the BPA nonattainment area. We then take 14th root (2007-1993 = 14) of 0.9744 to get the annual growth factor. Then take this annual factor to the 11th power to derive a 1996 to 2007 growth factor.

Table F.3-2 - BPA Growth Factor Derivation

Banked BPA NOx emissions from 1990 to 1999, tons/year	8068.60
Banked BPA NOx emissions from 1990 to 1999, tons/day	22.11
Projected banked BPA NOx emissions in 2007, tons/day	41.76
Eligible banked BPA NOx emissions in 2007, tons/day (after offset)	36.31
Projected BPA NOx emission reduction, 1990-2007, tons/day	5.45
Projected BPA NOx emission reduction, prorated to 1993-2007, tons/day	4.49
1993 BPA point source NOx emissions, tons/day	175.00
Projected 2007 BPA point source NOx emissions, tons/day	170.51
BPA Point Source NOx Growth factor, 1993 to 2007	0.9744
BPA Point Source NOx Growth factor per year	0.9981
BPA Point Source NOx Growth factor, 1996 to 2007	**0.9798**

F.3.3 Addition of new point sources to the 2007d future case inventory

While Senate Bill 7 regulates the future emissions from existing power plants, new sources will be built to accommodate growing demand in the DFW area. To account for these new sources, the Commission reviewed new air permits for sources that are not yet operating as of 10/99 (permits recently issued and permit applications currently under review.) Significant EGU sources and Cement Kilns within 100 miles of the DFW area were added to the future base inventory 2007d (these sources were not included in the 2007b future inventory). The new sources are summarized in Table F.3-3 below. Note that Standard Industrial Classification (SIC) code 4911 is electric generation, while SIC 3241 represents cement kilns.

Table F.3-3 New Sources Added to 2007d Future Base Modeling Inventory.

Facility ID	SIC	County Name	Stack ID	Stack Height (Meters)	Projected emissions (tons/day)		
					NO_X	CO	VOC
0034	4911	Johnson	1000	33.5	1.41	4.69	0.36
			2000	36.6	0.09	0.27	0.01
			0001	39.6	1.41	4.69	0.36
1000	4911	Ellis	100	47.2	0.41	3.05	0.21
			200	47.2	0.41	3.05	0.21
			300	47.2	0.41	3.05	0.21
			400	47.2	0.41	3.05	0.21
			500	47.2	0.41	3.05	0.21
			600	47.2	0.41	3.05	0.21
1000	4911	Lamar	100	36.6	0.95	0.82	0.06
			200	36.6	0.95	0.82	0.06

Facility ID	SIC	County Name	Stack ID	Stack Height (Meters)	Projected emissions (tons/day)		
					NO_X	CO	VOC
			300	36.6	0.95	0.82	0.06
			400	36.6	0.95	0.82	0.06
2000	4911	Ellis	100	48.8	1.10	1.49	0.09
1000	4911	Parker	100	41.2	0.70	0.34	0.03
			200	41.2	0.70	0.34	0.03
			300	25.9	0.38	0.62	0.02
			400	25.9	0.38	0.62	0.02
1000	4911	Bosque	100	41.2	0.70	0.34	0.03
			200	41.2	0.70	0.34	0.03
			300	25.9	0.38	0.64	0.02
			400	25.9	0.38	0.64	0.02
			500	25.9	0.70	0.34	0.03
1000	4911	Archer	100	36.6	0.96	0.56	0.06
			200	36.6	0.96	0.56	0.06
			300	36.6	0.96	0.56	0.06
			400	36.6	0.96	0.56	0.06
1000	4911	Hood	100	36.6	0.98	1.56	0.09
			200	36.6	0.98	1.56	0.09
			300	36.6	0.98	1.56	0.09
			400	36.6	0.98	1.56	0.09
1000	4911	Freestone	100	48.8	0.76	1.03	0.03
			200	48.8	0.76	1.03	0.03
			300	48.8	0.76	1.03	0.03
			400	48.8	0.76	1.03	0.03
1000	4911	Anderson	100	42.7	0.85	1.09	0.10
			200	42.7	0.85	1.09	0.10
			300	42.7	0.85	1.09	0.10
			400	42.7	0.85	1.09	0.10
			500	42.7	0.85	1.09	0.10
			600	42.7	0.85	1.09	0.10
1000	4911	Kaufman	100	48.8	1.27	1.03	0.31
			200	48.8	1.27	1.03	0.31
			300	48.8	1.27	1.03	0.31
			400	48.8	1.27	1.03	0.31

Facility ID	SIC	County Name	Stack ID	Stack Height (Meters)	Projected emissions (tons/day)		
					NO_X	CO	VOC
			500	48.8	1.27	1.03	0.31
			600	48.8	1.27	1.03	0.31
1001	4911	Kaufman	100	47.2	1.02	0.84	0.04
			200	47.2	1.02	0.84	0.04
1000	4911	Jack	100	49.4	1.00	0.82	0.04
			200	49.4	1.00	0.82	0.04
1000	4911	Collin	100	15.2	0.43	0.73	0.09
1000	3241	Grayson	100	105.8	18.00	26.51	8.23
0022	3241	Ellis	062	76.2	6.54	13.20	1.40
0009	3241	Ellis	500	94.5	8.18	1.11	0.08

F.4 Point source controls modeled in Strategy 30

Table F.4-1 shows the Strategy 30 controls modeled for non-EGU point sources in the four-county DFW nonattainment area. Table F.4-2 shows the controls modeled for EGUs in the four-county area. Table F.4-3 shows the controls modeled for cement kilns in central and Eastern Texas.

Table F.4-1 NO_X Control Factors for the 4-county DFW Industrial Boilers and Engines

FIPS	PLANT	STACK	POINT	Account	EPN	Plant Name	County	% Reduction
48439	0559	0009	009	TA0115B	BOILER1	DFW INTERNATIONAL AIRPORT	TARRANT	67.27
48439	0559	0008	008	TA0115B	BOILER2	DFW INTERNATIONAL AIRPORT	TARRANT	70.00
48439	0559	0007	007	TA0115B	BOILER3	DFW INTERNATIONAL AIRPORT	TARRANT	72.31
48439	0003	0015	016	TA0156K	BLR#1	LOCKHEED MARTIN TACTICAL	TARRANT	70.00
48439	0003	0096	017	TA0156K	BLR#2	LOCKHEED MARTIN TACTICAL	TARRANT	70.00
48439	0003	0097	018	TA0156K	BLR#3	LOCKHEED MARTIN TACTICAL	TARRANT	70.00
48439	0003	0098	019	TA0156K	BLR#4	LOCKHEED MARTIN TACTICAL	TARRANT	70.00
48113	0819	0001	001	DB2459D	BOILER1	SOUTHWEST MEDICAL CENTER	DALLAS	70.00
48113	0819	0002	002	DB2459D	BOILER2	SOUTHWEST MEDICAL CENTER	DALLAS	70.00
48113	0006	0009	008	DB0820B	CUPBOILER1	TEXAS INSTRUMENTS, INC.	DALLAS	72.73
48113	0006	0283	009	DB0820B	CUPBOILER2	TEXAS INSTRUMENTS, INC.	DALLAS	72.73
48113	0006	0010	179	DB0820B	CUPBOILER3	TEXAS INSTRUMENTS, INC.	DALLAS	72.73
48121	0264	0002	002	DF0008K	CM-1	NGC-WARREN N.G.L., INC.	DENTON	82.00
48121	0264	0003	003	DF0008K	CE-2	NGC-WARREN N.G.L., INC.	DENTON	82.00
48113	0819	0003	003	DB2459D	EXH1	SOUTHWEST MEDICAL CENTER	DALLAS	84.00
48439	0107	0018	0011	TA0235N	E408	MILLER BREWING CO.	TARRANT	75.00
48439	0107	0018	0011	TA0235N	E409	MILLER BREWING CO.	TARRANT	75.00

Table F.4-2 NOx Control Factors Derived Using the Acid Rain Data for the 4-county DFW EGUs

ORIS	BLRID	FIPS	PLANT	STACK	POINT	ACCOUNT	EPN	Plant Name	COUNTY	% Control
3500	1	48085	0002	0001	001	CP0065C	C0-S1A	Collin	COLLIN	75.00
3500	1	48085	0002	0002	001	CP0065C	C0-S1B	Collin	COLLIN	75.00
3576	BW2	48085	0015	0001	001	CP0026M	STACK-BW2	Ray Olinger	COLLIN	84.71
3576	BW3	48085	0015	0003	004	CP0026M	STACK-BW3	Ray Olinger	COLLIN	82.04
3576	CE1	48085	0015	0004	005	CP0026M	STACK-CE1	Ray Olinger	COLLIN	78.68
3574	See note	48113	0007	0005	005	DB0384A	STACK-CE1	C E Newman	DALLAS	87.31
3574	See note	48113	0007	0006	006	DB0384A	STACK-CE2	C E Newman	DALLAS	87.31
3574	See note	48113	0007	0001	001	DB0384A	STACK-BW3	C E Newman	DALLAS	87.31
3574	See note	48113	0007	0002	002	DB0384A	STACK-BW4	C E Newman	DALLAS	87.31
3574	BW5	48113	0007	0004	004	DB0384A	STACK-BW5	C E Newman	DALLAS	87.35
3452	1	48113	0009	0002	006	DB0249H	LH-S1	Lake Hubbard	DALLAS	82.04
3452	2	48113	0009	0003	008	DB0249H	LH-S2	Lake Hubbard	DALLAS	85.18
3453	2	48113	0010	0002	002	DB0252S	MT-S2	Mountain Creek	DALLAS	88.60
3453	3A	48113	0010	0003	003	DB0252S	MT-S3	Mountain Creek	DALLAS	89.15
3453	3B	48113	0010	0003	003	DB0252S	MT-S3	Mountain Creek	DALLAS	89.15
3453	6	48113	0010	0008	010	DB0252S	MT-S6A	Mountain Creek	DALLAS	88.77
3453	6	48113	0010	0009	010	DB0252S	MT-S6B	Mountain Creek	DALLAS	88.77
3453	7	48113	0010	0010	011	DB0252S	MT-S7A	Mountain Creek	DALLAS	92.78
3453	7	48113	0010	0011	011	DB0252S	MT-S7B	Mountain Creek	DALLAS	92.78
3453	8	48113	0010	0012	012	DB0252S	MT-S8	Mountain Creek	DALLAS	79.38
3455	1	48113	0011	0006	006	DB0253Q	PD-S1A	Parkdale	DALLAS	91.41
3455	1	48113	0011	0007	006	DB0253Q	PD-S1B	Parkdale	DALLAS	91.41
3455	2	48113	0011	0008	007	DB0253Q	PD-S2A	Parkdale	DALLAS	93.15
3455	2	48113	0011	0009	007	DB0253Q	PD-S2B	Parkdale	DALLAS	93.15
3455	3	48113	0011	0010	008	DB0253Q	PD-S3A	Parkdale	DALLAS	91.25
3455	3	48113	0011	0011	008	DB0253Q	PD-S3B	Parkdale	DALLAS	91.25

ORIS	BLRID	FIPS	PLANT	STACK	POINT	ACCOUNT	EPN	Plant Name	COUNTY	% Control
3454	1	48113	0012	0005	005	DB0251U	NL-S1A	North Lake	DALLAS	85.60
3454	1	48113	0012	0006	005	DB0251U	NL-S1B	North Lake	DALLAS	85.60
3454	2	48113	0012	0007	006	DB0251U	NL-S2A	North Lake	DALLAS	87.43
3454	2	48113	0012	0008	006	DB0251U	NL-S2B	North Lake	DALLAS	87.43
3454	3	48113	0012	0009	007	DB0251U	NL-S3A	North Lake	DALLAS	88.51
3454	3	48113	0012	0010	007	DB0251U	NL-S3B	North Lake	DALLAS	88.51
4266	See note	48121	0002	0001	001	DF0012T	S-1	Spencer	DENTON	79.38
4266	See note	48121	0002	0002	002	DF0012T	S-2	Spencer	DENTON	79.38
4266	See note	48121	0002	0003	003	DF0012T	S-3	Spencer	DENTON	79.38
4266	4	48121	0002	0004	004	DF0012T	S-4	Spencer	DENTON	90.60
4266	5	48121	0002	0005	005	DF0012T	S-5	Spencer	DENTON	90.78
3489	3	48439	0006	0002	007	TA0352I	EM-S3	Eagle Mountain	TARRANT	81.47
3489	1	48439	0006	0004	004	TA0352I	EM-S1&2	Eagle Mountain	TARRANT	94.28
3489	2	48439	0006	0004	006	TA0352I	EM-S1&2	Eagle Mountain	TARRANT	89.19
3491	4	48439	0007	0004	003	TA0353G	HA-S4	Handley	TARRANT	77.12
3491	5	48439	0007	0005	004	TA0353G	HA-S5	Handley	TARRANT	76.58
3491	1A	48439	0007	0010	009	TA0353G	HA-S1	Handley	TARRANT	78.52
3491	1B	48439	0007	0010	019	TA0353G	HA-S1	Handley	TARRANT	78.00
3491	2	48439	0007	0011	010	TA0353G	HA-S2	Handley	TARRANT	91.16
3491	3	48439	0007	0012	011	TA0353G	HA-S3A	Handley	TARRANT	89.48
3491	3	48439	0007	0013	011	TA0353G	HA-S3B	Handley	TARRANT	89.48
3493	4	48439	0008	0001	002	TA0354E	NM-S4	North Main	TARRANT	90.93

Note: Sources not included in Acid Rain Program Database do not have a boiler ID (BLRID).

Table F.4-3. Point Sources Modeled for Proposed Cement Kiln NOx Regulations

ACCOUNT	COMPANY	COUNTY	FIPS	PLANT	STACK	POINT	Process	NO_X Limit (lb/ton clinker)	Modeled Percent Reduction
BG0045E	Capitol Aggregates	Bexar	48029	0001	0009	005	Wet	6.0	47.55
BG0259G	Alamo Cement	Bexar	48029	0068	0041	041	Dry	2.8	48.81
CS0018B	Texas Industries	Comal	48091	0009	0011	011	Dry	2.8	6.04
CS0022K	Sunbelt Cement	Comal	48091	0010	0016	067	Dry	2.8	13.58
ED0066B	Texas Industries	Ellis*	48139	0009	0011	071	Wet	6.0	33.48
ED0066B	Texas Industries	Ellis*	48139	0009	500	500	Wet	6.0	33.48
ED0066B	Texas Industries	Ellis*	48139	0009	0014	074	Wet	6.0	33.48
ED0099J	Holnam	Ellis*	48139	0022	0007	007	Dry	2.8	22.22
HK0014M	Texas Lehigh Cement	Hays	48209	0003	0015	001	Dry	2.8	14.64
HK0014M	Texas Lehigh Cement	Hays	48209	0003	0001	001	Dry	2.8	14.64
MB0123F	Lehigh Portland Cement	McLennan	48209	0005	0034	015	Wet	6.0	65.99

* For Strategy 30, an additional factor was applied to sources near Midlothian in Ellis county to make a total reduction of 50% from the uncontrolled 2007 projected future emissions.